

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF NEW YORK

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SYNCA DIRECT, INC.,

Plaintiff and  
Counterclaim-Defendant,

vs.

MULTIMEDIA DENTAL SYSTEMS, INC.,

Defendant and  
Counterclaim-Plaintiff,

vs.

SYNCA, and JOHN DOES 1-5,

Additional  
Counterclaim-Defendants.  
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Index No. 06-CV-1263  
LEK/DRH

**DECLARATION OF JAMES E. OSWELL, JR.**

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF NEW YORK

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SYNCA DIRECT, INC.,

Plaintiff,

~against~

MULTIMEDIA DENTAL SYSTEMS, INC.

Defendant.

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**DECLARATION OF  
JAMES E. OSWELL, JR.**

Index No. 06-CV-1263 LEK/DRH

I, James E. Oswald, Jr., hereby declare as follows:

1. My name is James E. Oswald, Jr., and I am Executive Vice President and Chief Software Architect for MultiMedia Dental Systems, Inc. ("MMD"). I have 14 years experience in the dental technology industry. In 1992, I founded Practice Masters, a dental technology firm which subsequently merged with MMD. I am the author of three dental practice management software programs. Unless otherwise specified, all of the statements in this declaration are made on the basis of my review and investigation described below and my training in, knowledge of, and experience with software architecture and design.

**Background and Experience**

2. Before I entered the dental technology field, I attended John Carroll University where I majored in chemical engineering. I held various positions in the electro-chemical/metal plating industry. Among other positions, I worked with the first plating processes for multi layer circuit boards for the computer industry. I founded the company which became the Southeast's first Internet Service Provider, Paragon Communications. I was also the US National Application Engineering Manager for Telelobe Communications.

**MMD Holds A Valid Copyright In MediaDent D.I.**

3. In my position, I am familiar with the design, architecture, and functionality of the MediaDent® Digital Imaging v.4.5 software ("MediaDent D.I.") marketed by MMD. MMD owns the exclusive rights to MediaDent. It holds a valid copyright in MediaDent D.I. (including the screen displays and related documentation) that was duly and properly registered with the United States Copyright Office, bearing Registration Number TX-6-159-013.

4. MediaDent D.I. is the world's most widely used digital X-ray and dental imaging software solution. It is a powerful tool that allows dental clinicians to capture and store images from radiographs, video photography, and other source, and to integrate them with patient exam results all in one place. Designed as an open architecture solution, MediaDent D.I. works with virtually any sensor, PSP, digital pan, scanner or camera, and integrates with a wide range of practice management software systems.

5. Figure 1, below, is a screenshot of MediaDent D.I., showing how it integrates and presents dental images:

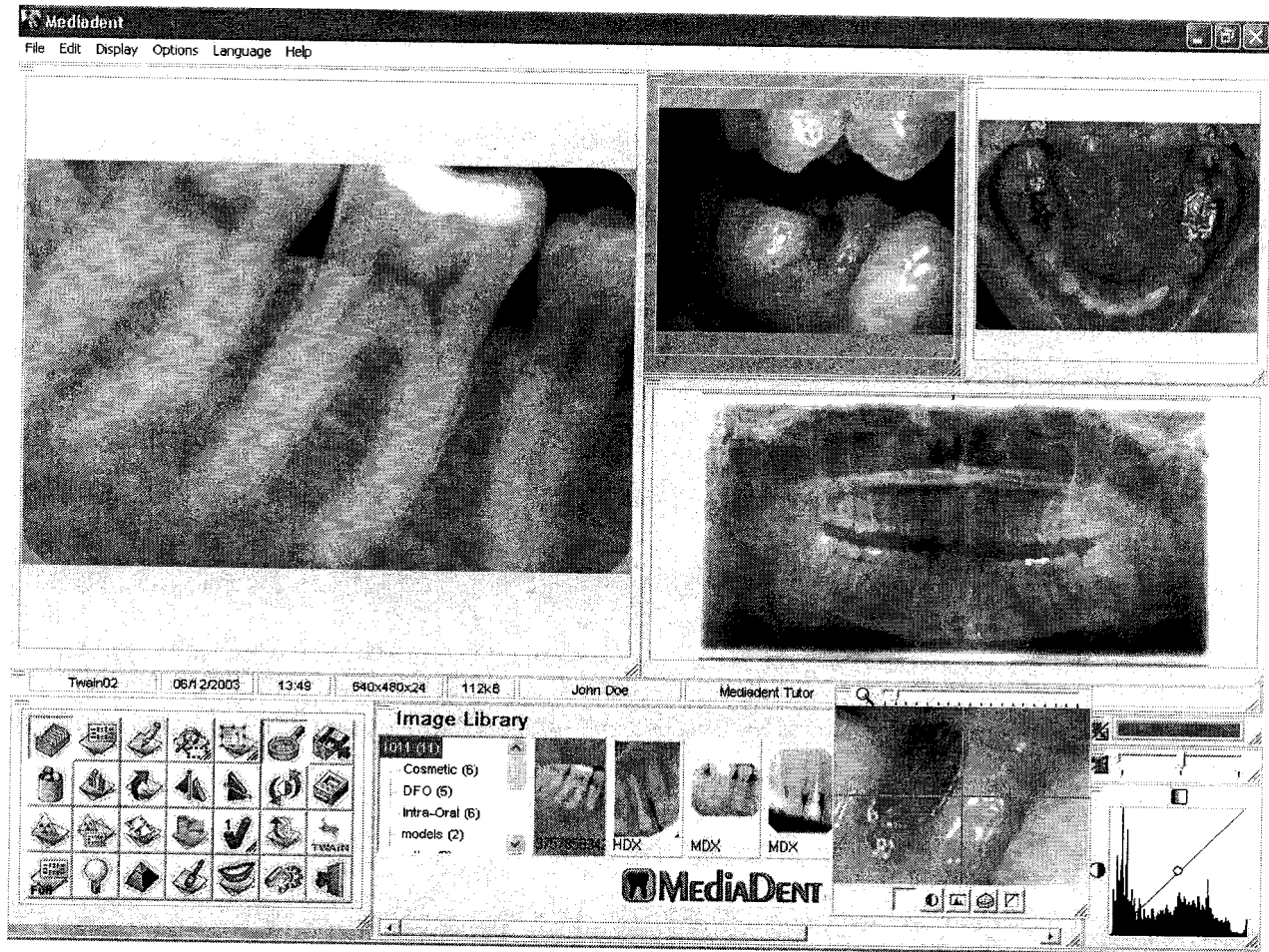


Figure 1

### A Brief Overview Of Software Concepts

6. In order to explain my specific conclusions and the grounds upon which I base them, I first provide some background regarding software applications and their development.

7. Software applications are initially written and developed in “source code.” The source code is a list of programming instructions, written in a particular programming language, that tells the computer system to perform certain functions in response to certain data (for instance, to display a particular image in a particular location on the monitor). There are usually many different ways to write software to perform similar functions. Virtually all word

processing programs, for example, will display a “preview” of a document to allow the user to review it before printing, but the source code for different software programs will be written differently, depending on the programming language used, variations in technology, and even the particular programming style of the developer who wrote the code. To use a simple analogy, just as two authors writing about the same event will use different language to describe it, so, too, different programmers writing a program to perform similar functions would write their code in different ways.

8. Given the enormous variety of ways in which a software program can be written, it is exceedingly unlikely that two independently developed programs would be written in identical or near identical source code. If two programs (particularly sophisticated applications like dental imaging software) are written in identical or near identical source code, then, it is virtually assured that one was copied from or otherwise derived from the other.

9. If a programmer were able to obtain the source code to a program, it would be relatively simple to read it, discern the details of the program’s logic, structure, and design, or compare it to the source code and structure of another program. It would also be very easy to copy it. As a consequence, software companies typically “compile” source code for a software program into “object code,” a machine-readable form consisting of zeros and ones. The software program is then distributed in object code form, which is also called “executable” format, because it is the form in which a computer runs the program. Object code does not reveal the program’s underlying logic, and typically denies the user access to the underlying source code.

**Significant Portions Of The CADI Source Code Were Copied From MediaDent D.I.**

10. After Synca Direct, Inc. ("Synca Direct") brought this action seeking a declaratory judgment that its CADI v4 software program ("CADI") did not infringe the copyright in MediaDent D.I., MMD requested that Synca Direct provide a copy of the source code for CADI, to facilitate a comparison. Synca Direct refused. Consequently, MMD arranged to obtain a copy of CADI in executable (object code) form.

11. On November 28th, 2006, I received a copy of product called CADI v4 software ("CADI") from Tim McLaughlin, an employee of MMD. A copy of the packaging and related materials are attached hereto as Exhibit "A".

12. Under my control and direction, MMD conducted certain comparisons and tests to determine if CADI contained source code identical to the source code in MediaDent D.I. Those comparisons and tests revealed that CADI contained source code that was identical, except in very trivial respects, to the source code in MediaDent D.I.

13. First, from the materials that we obtained from Synca Direct, we were able to view the names of the files that comprise the CADI software. A complex software application like MediaDent D.I. (and thus CADI), is comprised of many different files of source code (often referred to as "source files").

14. In addition, each file in a software application typically consists of code that performs a specific function, and the widespread convention among software programmers is to name a file in a way that gives some hint about its function. There are many different ways, however, that a file that performs a particular function can be named. A file whose function is to capture a still image from video stream on a computer running the Microsoft Windows operating system,



for instance, could be named STILLCAPVIDWIN, or WINSTILLCAPVID, or WINVIDSTILLCAP, or WVIDSTLCAP, or WVSTLCAPT, or any number of similar variations.

15. Our review of the CADI software revealed that more than 150 files in CADI had names identical to files in MediaDent D.I. Moreover, many of these names are unique and hardly obvious. The dynamically linked library (".dll") in the MediaDent D.I. software that is used to capture still images from a video stream on a computer running the Windows operating system is named **CTPVFWSTILLCAP.DLL**. The CADI software contains the same .dll with the same name. In fact, there are at least 38 .dll files in the CADI software that have names identical to .dll files in MediaDent D.I. These files are listed in Attachment 1.

16. The CADI software includes initialization files, or .ini files, which contain settings and configuration data that are necessary to run applications on the Windows operating system. At least 38 of the .ini files in the CADI software have names identical to the .ini files in MediaDent D.I. These files are listed in Attachment 2.

17. In the CADI software, the .ini files are in plain text (as opposed to the zeros and ones of object code), which allowed us to run a differencing program that compared the 38 .ini files in the CADI software with the corresponding .ini files in MediaDent D.I. A differencing program is essentially equivalent to a "red-lining" program for a word processing document; the program compares the text in one file with the text in the other and shows the differences.

18. The results of the differencing were striking: the .ini files for the CADI software were virtually identical to the .ini files in MediaDent D.I. The configuration options (e.g., the option that tells the software to look in a particular place on the user's computer for certain information) are literally identical; the only changes were the parameters that were chosen (e.g.,

the place where the software could find the information was at c:\ProgramFiles\CADI\userinfo rather than c:\ProgramFiles\MediaDent\userinfo).

19. The CADI software program also includes 102 desktop layout files (".dsk files"), which are files that tell the software where to display certain images or data on the graphical user interface (where a window will appear when it is activated by the user, for instance and where items within a window such as a button or a dropdown menu will appear). These files are listed in Attachment 3. At least 93 of the .dsk files in CADI have names that were identical to the names of .dsk files in MediaDent D.I.

20. Like the .ini files, the .dsk files are in plain text and thus can be run through a differencing program. We therefore selected 36 of the .dsk files at random and ran a differencing analysis. Once again, the results were striking: all of the possible options in the .dsk files were identical to the options in the .dsk files in the MediaDent D.I. software. Once again, the only differences were in the choice of parameter for those possible options.

21. Next, we analyzed the dynamically linked libraries (".dlls") in the CADI software. These files contain code that perform certain functions (such as creating a still capture from a video stream), and they can be used or "called" by other parts of the program to perform those functions whenever they are needed. As noted above, 38 of the .dll files in CADI have names identical to the names of .dll files in MediaDent D.I. Because the .dlls are in object code, we could not run a differencing analysis. We were able to determine, however, that all of the .dlls had exactly the same structure as the .dlls in the MediaDent D.I. software, with one minor difference. In the MediaDent D.I. software, the exception handling function -- the code that tells the computer what to do and what message to display when it encounters an error -- is in a single

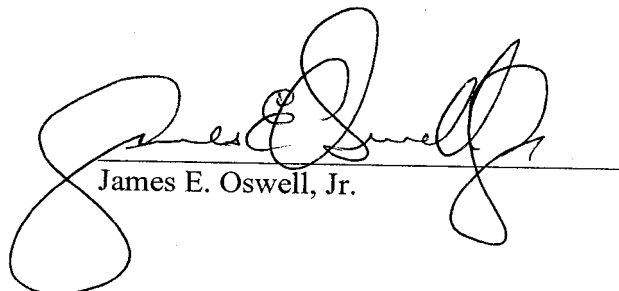


file that all of the other files in the program can use or "call" when necessary. In the CADI software, each .dll includes one additional function at the end for exception handling.

22. Based upon these analyses and comparisons, there can be no doubt that substantial portions of the CADI source code is identical to or derived from the MediaDent D.I. source code. In short, the CADI software infringes MMD's copyright in the MediaDent D.I. software.

23. I am over 18 years of age and suffering no legal disability. The foregoing statements are based on my personal knowledge and observation, and are made with the understanding it may be used in support of an application for injunctive relief or any other purpose provided by law.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 12 day of December, 2006.



James E. Oswell, Jr.

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